Management of pregnant women with artificial heart valves: inconsistency in ESC publications

I read with interest the ESC position paper on anticoagulants in heart disease. However, I was surprised by the succinct statement on anticoagulation in pregnant patients with artificial heart valves. Vitamin K antagonists increase the risk of embryopathy, whereas the use of unfractionated heparin has been associated with an increased thromboembolic risk for the mother. Experience with low molecular weight heparin is still limited.

The risk of warfarin embryopathy is probably dose-dependent. The current ESC guideline on management of valvular heart disease published in this journal in January 2007 therefore favours the use of warfarin during the first trimester if the dose is ≤5 mg/24 h. This recommendation is in line with an older ESC consensus document published in 2003. The management of pregnant women with artificial heart valves using low molecular weight heparin proposed in the paper by De Caterina et al. deviates from these ESC guidelines unless any further explanation. Interestingly, even the cited recommendations by Butchart et al. published in 2005 strongly favour the use of oral anticoagulation throughout pregnancy.

However, the policy suggested in the ESC position paper by De Caterina et al. is in line with current AHA recommendations. The optimal management of pregnant women with artificial heart valves is discussed controversially and often poses a challenge to both physicians and patients involved. Because clinicians rely on guidelines and expert recommendations, it is important to establish consistency within publications by ESC task forces and working groups. However, in case of controversial opinions, these should be discussed.

References

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Management of pregnant women with artificial heart valves: inconsistency in ESC publications: reply

Referring to our position paper on 'anticoagulants in heart disease: current status and perspectives', Dr Mischke has noticed that the recommendations about the management of pregnant women with artificial heart valves in our position paper adhere more to the ACC/AHA than to the latest ESC guidelines on valvular heart disease. This is indeed a quite controversial subject. No doubt pregnant women with prosthetic heart valves require anticoagulation. There is still, however, insufficient clinical evidence to make definitive recommendations about optimal antithrombotic therapy with a low risk of embryopathy, a low risk of maternal valve thrombosis, and an acceptable bleeding risk. The available evidence is discussed in detail and recommendations are given in the Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy. The latest ACC/AHA guidelines closely adhere to this important and world-wide accepted paper written by experts in anticoagulation and pregnancy-related thrombo-embolism. In the ACC/AHA guidelines, it is stressed that the different options should be carefully discussed with the patient before any final decision about treatment strategy is taken. Independent of the strategy, the need for frequent monitoring is strongly emphasized.

In our position paper, we carefully evaluated the studies available on anticoagulants and pregnancy, and we did (and do) agree with the statements of the ACCP document and more recent consequent documents with the same recommendations, in that:

(i) the handling of anticoagulant therapy in pregnant women with prosthetic heart valves is controversial and should be managed by specialists;
(ii) vitamin K antagonists (VKAs) should be avoided between weeks 6 and 12 and from the middle of the third trimester until delivery;
(iii) treatments with unfractionated heparin or low-molecular-weight heparin throughout pregnancy are optional, but need to be monitored very closely by measurement of relevant coagulation parameters;
(iv) the different treatment strategies, with all consequent risks and benefits, should be carefully discussed with any pregnant woman before any final decision of therapeutic strategy is taken.

We are aware that the recent ESC guidelines on the 'management of valvular heart disease' favour the use of VKAs (warfarin) if the maintenance dose is relatively low (<5 mg/day) also in the first trimester of pregnancy, but this recommendation is based on data from studies of small cohorts of patients. The consensus among our panel of anticoagulation experts did not favour this view on the basis that information about the safety of VKAs even at these low doses in the first trimester of pregnancy is scarce and because we weighted the risk of embryopathy higher than the risk of thrombosis associated with alternative available